

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
OMORI, Akihiro et al.	)	Group Art Unit: 1797
	)	
Application No.: 10/582,339	)	Examiner: Dirk R. BASS
	)	
Filed: June 9, 2006	)	
	)	
For: Porous Formed Article and Method	)	Confirmation No.: 4988
for Production Thereof	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. 1.132 of Akihiro OMORI

I, Akihiro OMORI, do hereby make the following declaration:

1. I am an inventor of the subject matter described in U.S. Application No. 10/582,339 ("the '339 Application"), filed on June 9, 2006 and published as U.S. Patent App. Pub. No. 2007/0128424.
2. I have been employed by Asahi Kasei Chemicals Corporation since April 1992, and I am presently engaged in development of commercial products for water treatment. During my employment, I have about eight years of experience in the research and development of porous formed articles and methods of producing them.

3. My qualifications and professional training include the following: I have a Master of Engineering from Graduate School of Engineering (Dept. of Industrial Chemistry), Hiroshima University.
4. My general work experience includes preparing organic polymer resins, characterizing them, and studying their uses, *e.g.*, as absorbent materials.
5. I am the first inventor listed on U.S. Patent No. 6,689,465 ("the '465 Patent"), which discloses certain porous polymer beads, including that of the '465 Patent's Example 3 ("the '465 article").
6. I have studied each of the '465 article and the porous article of Example 2 of the '339 Application ("the '339 article") by observing images attained by scanning electron microscopy ("SEM"). The attached four photographs accurately represent SEM images for the '465 article (*see also* '465 Patent at Figure 13) and the '339 article (*see also* '339 Application at Figure 1).
7. The '339 article has cavities in the interior of its fibrils whereas the '465 article does not. *See* paras. 8 and 9, below. This distinction is apparent by comparing the SEM images for each of the '339 article and the '465 article.
8. Based on my observations by SEM, the '339 article has cavities in the interior of its fibrils. These cavities are apparent in the left-hand column of two photographs in the attached four photographs of SEM images. Notably, these two photographs show opened cavities, as dark spots surrounded by lighter parts of the image. The lower left-

hand photograph shows a magnified view, making the appearance of the cavities more apparent.

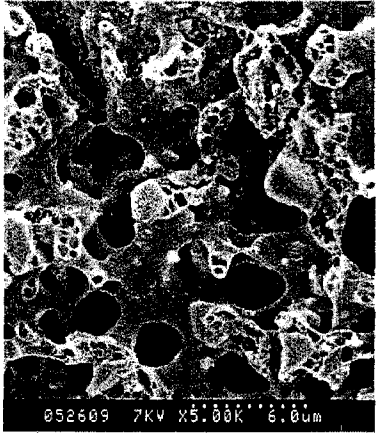
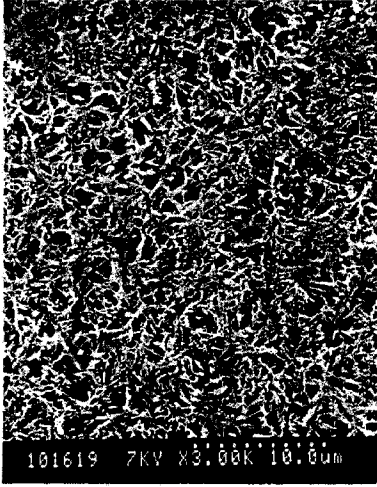

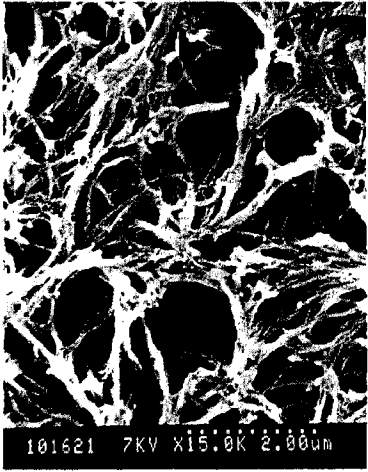
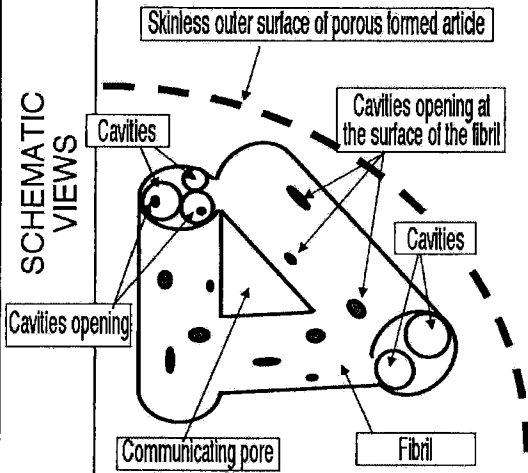
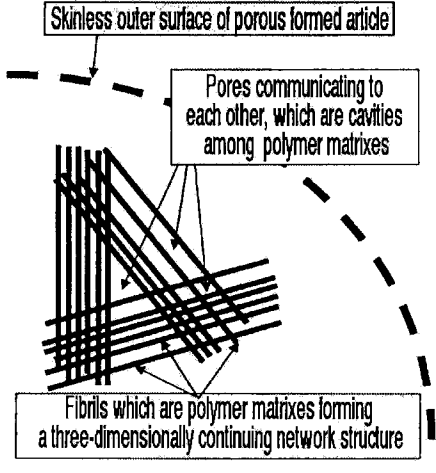
9. Based on my observations by SEM, the '465 article does not include cavities in the interior of its polymer fibrils. The photographs of the '465 article are shown in the right-hand column of two photographs within the attached four photographs. Those SEM images show that the fibrils are entangled with each other and that the '465 article does not have cavities in the interior of its polymer fibrils.

10. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Dated: 31st August, 2010 By: Akihiro Omori  
Akihiro OMORI

**Attachment:** SEM images

## COMPARISON SHEET (STRUCTURE OF FIBRILS)

	PRESENT INVENTION	Omori et al (US 6,689,465B1)
Mentioned in the specification	<p style="text-align: center;">Fig.1</p> 	<p style="text-align: center;">Fig.13</p> 
ENLARGED FIGURE	<p style="text-align: center;">Fig.2 (Enlarged figure of Fig.1; magnification of 10,000times; mentioned in the specification)</p> 	<p style="text-align: center;">Enlarged figure of Fig.13 (magnification of 15,000; not mentioned in the specification)</p> 
SCHEMATIC VIEWS	 <p style="text-align: center;">Skinless outer surface of porous formed article</p> <p>Cavities</p> <p>Cavities opening at the surface of the fibril</p> <p>Cavities</p> <p>Cavities opening</p> <p>Communicating pore</p> <p>Fibril</p>	 <p style="text-align: center;">Skinless outer surface of porous formed article</p> <p>Pores communicating to each other, which are cavities among polymer matrixes</p> <p>Fibrils which are polymer matrixes forming a three-dimensionally continuing network structure</p>